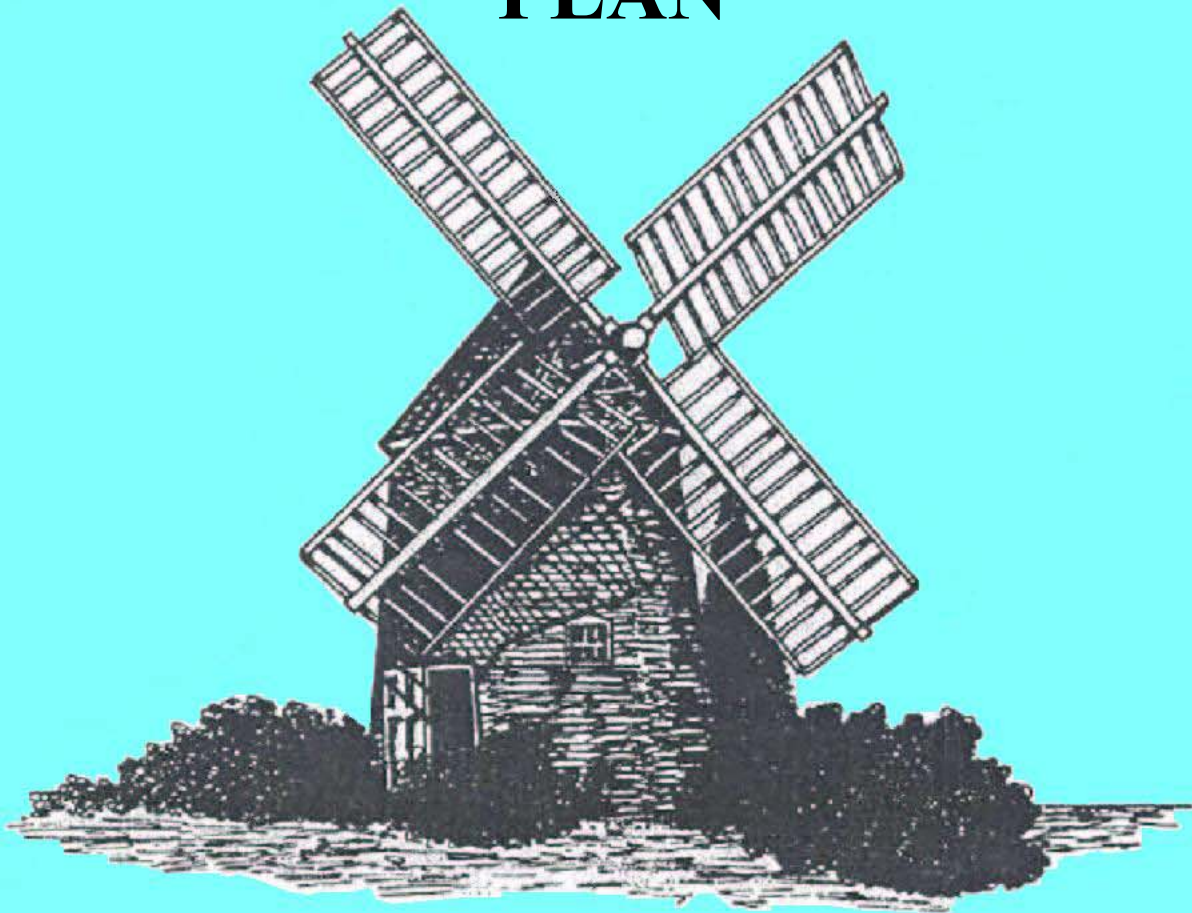


TOWN OF EASTHAM

LOCAL COMPREHENSIVE PLAN



**SECOND EDITION
OCTOBER 2002**

**LONG RANGE PLANNING ADVISORY BOARD
MEMBERS**

**WALTER F. ROSS, CHAIRMAN
MARIO DINI, VICE-CHAIRMAN
BERNARD KAPLAN, CLERK
GEORGE ABBOTT
KENNETH AINSWORTH**

**Cover designed
by
LIANA RASMUSSEN
NAUSET REGIONAL HIGH SCHOOL
CLASS OF 2003
ART DIRECTOR
LINDA LANGLAIS**

BOARD OF SELECTMEN

Linda Burt – Chair

Henry Curtis – Vice Chair

Kenelm Collins – Clerk

Joyce Brookshire

Peter Whitlock

TOWN ADMINISTRATOR

Sheila Vanderhoef

INTRODUCTION

In 1990, the Cape Cod Commission was established and charged with the preparation and implementation of a regional land use policy plan. In 1991, the Commission adopted the Regional Policy Plan. The original Plan has been updated, the newest version is January 2002. The Plan is designed to help local planning committees identify important goals and policies for their towns, and to help fund and develop established guidelines for the development of local comprehensive plans.

Eastham is one of fifteen (15) towns on Cape Cod (Barnstable County). The boundaries of the Town are dominated by its coastlines (the Atlantic Ocean to the east and the Cape Cod Bay to the west), both approximately four and one-half (4.5) miles in length, and by the Towns of Wellfleet to the north and Orleans to the south. Eastham lies at the base of the outer arm of Cape Cod, ninety-two miles from both Boston and Providence, R. I. The Town has approximately fourteen and One-quarter miles of upland (9,120 acres) of which nearly one-third (3,000 acres) is within the United States Department of the Interior, National Park Service. Eastham has the distinction of being the gateway to the National Park Service Seashore. Topography in this area of the Cape is relatively flat, with a high point of seventy (70) feet along its northeastern coastline. The beauty of the Town attracts year round and summer residents alike.

The Local Comprehensive Plan provides the framework for local decision making. The plan includes *Goals and Policies* that will guide the Community in protecting those small-town qualities that are cherished by those who live and work here. The plan also includes an *inventory* of the Town's resources, an *Analysis* of present and future concerns, and *Recommendations* which reflect our goals and policies. Finally, the plan identifies specific actions designed to *Implement* the recommendations of the Plan.

Eastham's many Boards and Committees, local organizations and town departments contributed to the Plan. They represent a variety of local interests, including health and human services, natural resources, open space, affordable housing, historic preservation, as well as our local Chamber of Commerce. The Plan was developed with their assistance. The 2025 Committee and the Long Range Planning Advisory Board conducted public workshops, hearings and meetings - tabulated and distributed public opinion surveys.

Special assistance was provided by the Cape Cod Commission staff in preparing subsequent drafts and final Plan.

COMMITTEE STATEMENT

Eastham has the distinction of having the first Pilgrims land on its shores. The landing location is “First Encounter” beach, located at the end of Samoset Road which runs west from Town Hall to the Bay. This happening occurred December 8, 1620.

On June 7, 1651 the “Town of Nawsett” became known as Eastham.

Eastham founders and forefathers left legacies for all of us to enjoy and follow. With our history and culture our Town has retained much of its special historical qualities.

Today, we must look to the future and chart our course into the year 2007 and beyond.

Modern technology changes the face of the earth. How much we intend to change Eastham can be debated until we are literally covered with concrete and surrounded by high-rises. We, in the present, must reserve what we can to respect our past for the future. We have chosen Eastham, for its quiet winter life, tree-lined side roads, beautiful beaches, and walking and biking trails that extend into and through the land mass of the National Seashore.

The Nauset Indians walked these grounds many years ago. Our forefathers, the Pilgrims, followed suit. We, who are presently entrusted with formulating plans for the future of Eastham, must do our best to preserve the essence of these grounds. We will be judged for the courage we demonstrate in our comprehensive planning.

Eastham, planning for the future, is identified by the phase: “maintenance of community character.” This is expressed as a desire to produce, in effect, high quality drinking water, a continuance of our small town semi-rural atmosphere, maintaining our beaches, protecting and preserving our historic cultural resources and open space and natural resources. Little expression of the need for growth in our town has been heard. If and when growth occurs, it should be consistent with the carrying capacity of the Town’s natural resources and community facilities and should reflect the desire of the Town.

Eastham is, and will continue to be, a caring community as evidenced by a strong interest in affordable housing for all residents in our Town who have such need, and by the continued strong support given to human services.

Members of the Long Range Planning Advisory Board 2002:

Walter F. Ross, Chairman
Mario Dini, Vice-Chairman
Bernard Kaplan, Clerk
George Abbott
Kenneth Ainsworth

TABLE OF CONTENTS

I. INTRODUCTION

BOARD OF SELECTMEN.....	i
INTRODUCTION.....	ii
COMMITTEE STATEMENT	iii
<i>TABLE OF CONTENTS</i>	<i>iv</i>
GLOSSARY OF TERMS	v
<i>MAP LIST</i>	<i>viii</i>
<i>LOCUS Map</i>	<i>x</i>

II. GOALS, POLICIES, AND EXISTING CONDITIONS

<i>PUBLIC OPINION SURVEY AND WORKSHOP</i>	1
VISION AND GOALS	2
POPULATION TRENDS	4
LAND USE AND GROWTH MANAGEMENT	7
NATURAL RESOURCES.....	23
Water Resources	
Coastal Resources	
Wetlands/Wildlife and Plant Habitat	
Open Space	
Air Quality	
ECONOMIC DEVELOPMENT.....	79
COMMUNITY FACILITIES	91
Transportation	
Solid and Hazardous Waste Management	
Capital Facilities and Infrastructure	
Energy	
Human Services	
Library	
AFFORDABLE HOUSING	165
HISTORIC PRESERVATION/COMMUNITY CHARACTER	175

III. PLAN IMPLEMENTATION

IMPLEMENTATION.....	185
---------------------	-----

GLOSSARY OF TERMS

Affordable housing - dwelling units available at a cost of no more than 30% of gross household incomes to households at or below 80% of the county median income as reported by the U. S. Department of Housing and Urban Development (HUD), including units listed under M.G.L. c. 40B and the Commonwealth's Local Initiative Program.

Algal - any chiefly aquatic nonvascular plant.

Anadromous - ascending rivers from the sea for breeding.

Background traffic - the amount of traffic on the roadway system that is not created by new development within the town. Increases in background traffic include additional traffic traveling to locations within and through the town which originate outside the town.

Base flood elevation - base flood elevations for the town of Eastham are shown on maps prepared by the Federal Emergency Management Act (FEMA) as part of the National Flood Insurance Program (NFIP). The maps are held by the Natural Resources Department and the Conservation Commission.

Biodiversity - the sum total of the variety of species that occur within a given area or ecosystem.

By-right - a use allowed under zoning without requiring a special permit.

Catadromous - living in fresh water and going to the sea to spawn.

Coliform - relating to, resembling or being the colon bacillus.

Cumulative loading analysis - a watershed-based nutrient loading analysis.

Cluster development - a form of development that permits a reduction in lot area, frontage and setbacks to allow development on the most appropriate portions of a parcel of land in return for provision of a compensatory amount of permanently protected open space within the property subject to a development application.

Density bonus - zoning ordinances or bylaws may provide for special permits authorizing increases in the permissible density of population or intensity of a particular use in a proposed development so long as the applicant provides certain public benefits or amenities such as open space or affordable housing.

Equalized valuation - the fair cash value of all property in the town subject to taxation.

Flood plain zone - those areas subject to coastal flooding at base flood elevation levels established according to the Flood Insurance Rate Maps.

Glacial till - unstratified glacial drift consisting of clay, sand, gravel and boulders intermingled.

GPD - gallons per day.

Impact fees - a contribution paid by a person undertaking a development to a municipality designed to offset the impacts of a development. Impact fees may include, but are not limited to, creation or improvement of streets, sewers, water supplies, parks, schools, affordable housing and similar capital facilities.

Improvement Dredging – Any dredging under a license or permit in an area which has not been previously dredged or which extends the original dredged width, depth, length, or otherwise alters the original boundaries of a previously dredged area.

Land coverage - the percentage of the total lot area covered by structures or roofs.

Maintenance Dredging – Dredging in accordance with a license or permit in any previously authorized dredged area which does not extend the originally dredged depth, width or length.

Macroalgal - submerged aquatic vegetation.

Minimum Performance Standards - the basis for revising local regulations for future development in Eastham.

MIS - Management Information Systems.

No discharge zone - Land/water areas where the discharge to groundwater/water body of wastewater, hazardous waste, etc. is prohibited.

Outwash plain - a very fine flat landform of sand and gravel sloping gradually to the shoreline. In Eastham the gradual slope is from the east to the west.

Pervious - permeable, having pores or openings that permit liquids or gases to pass through.

PPM - parts per million.

Recharge area - Precipitation recharge areas are surfaces which are permeable to water and allow precipitation to move downward to the groundwater table. Containment recharge areas include areas where septic effluent or hazardous materials are discharged and move downward to the groundwater. Areas/zones of contribution are specific recharge areas around a well, pond or lake which contribute precipitation/contamination recharge to the well, pond or lake.

Strip development - continuous or intermittent linear roadside development located outside designated growth centers, generally one store deep, characterized by multiple roadway access, highly visible off-street parking, an assortment of commercial uses with direct access to abutting roads.

Swales - a shallow ditch-like depression often constructed to temporarily hold precipitation runoff to allow that water to percolate into the soils and recharge groundwater.

Tax title lands - parcels of land which have been taken by the town for failure to pay taxes.

Turbidity - not clear, clouded as if with sediment.

Transfer of development rights - the conveyance of development rights by deed, easement, or other legal instrument, authorized by local law, to another parcel of land. A transfer of development rights program may be used to transfer the development rights from environmentally sensitive areas of a community, or sending zones, to designated areas within a community in which density may be increased, or receiving zones.

Vernal pools - a seasonal fresh water body contained in an isolated depression that holds water for at least two consecutive months in most years, is free of adult fish populations and provides breeding habitat for amphibians and invertebrates.

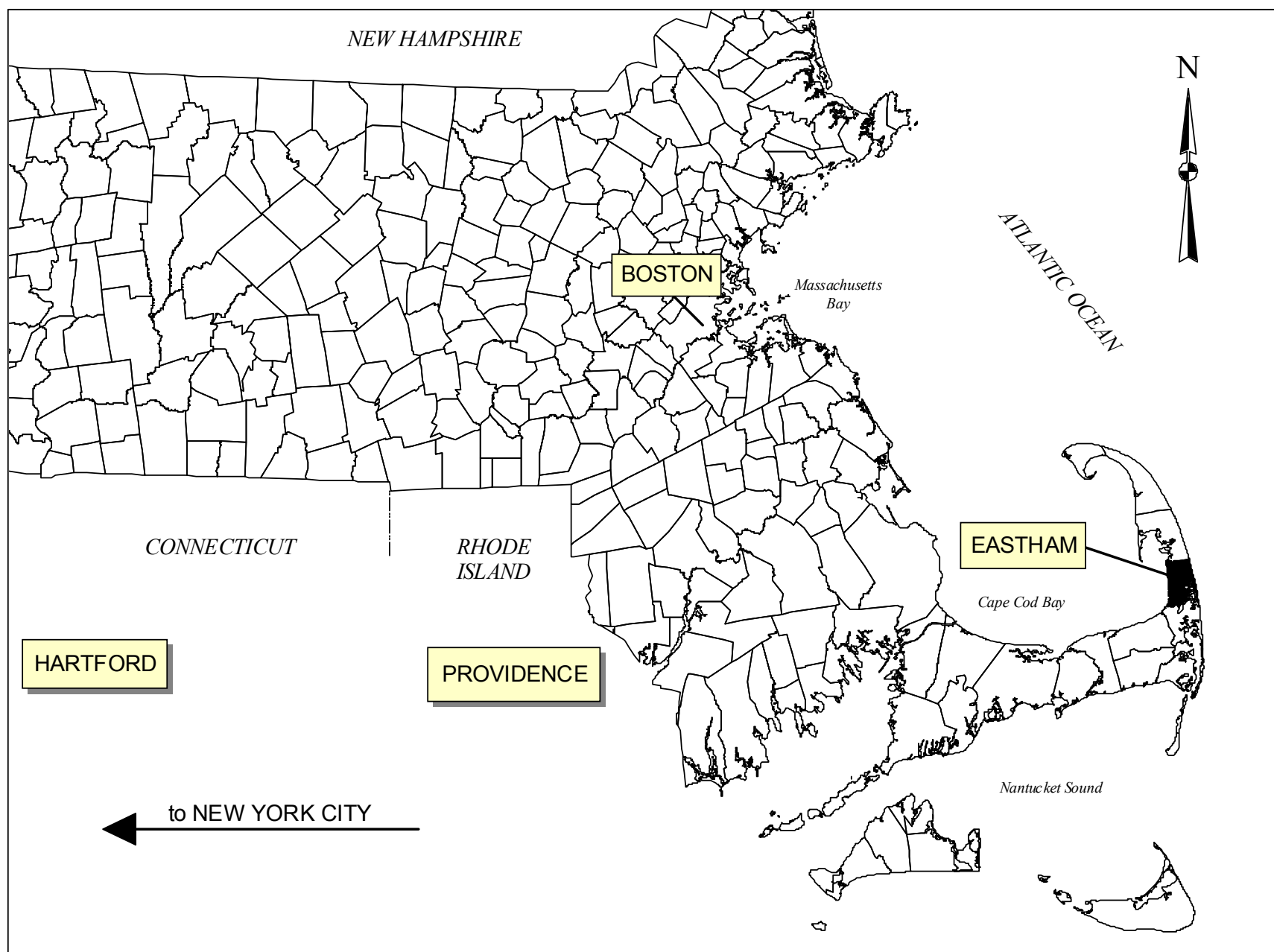
Waterway cut - a ditch or trench dug out so as to connect one body of water with another.

Working waterfront - an area of the shoreline where private/commercial dockage and services are available for vessels, i.e. Rock Harbor as opposed to waterfront shoreline, i.e. Nauset Light Beach.

MAP LIST

<u>Number</u>	<u>Name</u>	<u>Page</u>
	Locus Map	x
1	Existing Land Use	11
2	Future Land Use Schematic	12
3	Eastham's Water Supply	31
4	Potential Water Supply Sites	33
5	Wetlands, Wildlife and Plant Habitat	53
6	Open Space Map	64
7	Street Map	96
8	Transportation Classification Map	98
9	Road Volume/Capacity Ratio – Route 6 Corridor – Current Conditions (Winter)	99
10	Road Volume/Capacity Ratio – Route 6 Corridor – Current Conditions (Summer)	100
11	Traffic Problem Area Map	101
12	Road Volume/Capacity Ratio – Route 6 Corridor – Conditions in Year 2020 (Winter)	106
13	Road Volume/Capacity Ratio – Route 6 Corridor – Conditions in Year 2020 (Summer)	107
14	Road Volume/Capacity Ratio – Route 6 Corridor – Conditions at Buildout (Winter)	108

<u>Number</u>	<u>Name</u>	<u>Page</u>
15	Road Volume/Capacity Ratio – Route 6 Corridor – Conditions at Buildout (Summer)	109
16	Road Volume/Capacity Ratio – Route 6 Corridor – Conditions at Buildout where 2/3 of seasonal housing units become occupied Year Round (Summer)	110
17	Capital Facilities Map	129
18	Historic Preservation Map	179



PUBLIC OPINION SURVEY AND WORKSHOP

The Eastham Local Comprehensive Planning Committee conducted a series of public workshops on each of the plan elements and distributed a Community Survey. The following issues were identified in the Community Survey as the three most serious problems facing Eastham today.

The following table indicates the order of priority assessed by the respondents by age group:

Issue	<u>0 - 40 years</u>	<u>41 - 50 years</u>	<u>51 - 65 years</u>	<u>65 + years</u>
Population growth	1	2		
Water quality	2	3	1	2
Cost of service	3			
Education funding		1		
Over development			2	3
Transportation/traffic			3	1

Source: Local Comprehensive Planning Committee Survey

The respondents rated water quality, population growth or overdevelopment and transportation/traffic as the most serious issues facing Eastham. The 41 - 50 age group also identified education as a serious issue, and the 0 - 40 age group identified the cost of services as a serious issue.

Several of the key issues as identified in the community survey (water quality, population growth or overdevelopment, transportation/traffic, education funding and the cost of municipal services) are addressed by goals, policies and recommendations provided in this plan.

Other issues important to the Town identified through a series of public workshops were the following:

To provide for an efficient alternative public transportation system for residents and visitors,

- To limit additional commercial development on Route 6,
- To assist in the creation of additional affordable housing,
- To improve education and employment opportunities,
- To improve the health and human services for local residents,
- To promote appropriate economic development while protecting environmental resources and preserving historic character,
- To improve groundwater and surface water quality,
- To preserve and enhance open space and wildlife corridors,
- To plan for the overall growth and needs of the community, including but not limited to: schools, Town Hall, fire station, transportation and water systems

VISION AND GOALS

The vision, goals and actions recommended in this plan reflect the interests and issues expressed by residents of the Town and the Cape Cod Commission's objectives as stated in the Regional Policy Plan for Barnstable County.

Based on opinions gathered from public workshops, meetings with various Town Boards and civic organizations, the Long Range Planning Advisory Board enunciated the following overall vision statement:

“A diversified community which honors its past as a fishing and agricultural settlement, and current character as a modest residential, community which accommodates workers, vacationers and retirees.”

To achieve this vision, goals and related needs have been articulated to guide the planning process. Each section of the Plan also has goals and performance standards specific to its topic.

Eastham's Overall Goals and Related Needs

- Preserve the historic and rural character of the Town
- Protect/improve water quality and supply
- Ameliorate impact of Route 6 on rural Town character
- Reduce commercial sprawl and improve the appearance of commercial areas (Route 6)
- Improve Town Hall and Brackett Road areas
- Provide affordable year-round housing
- Provide quality service for all residents including schools, recreation facilities, police and fire services
- Improve sewage disposal systems
- Coordinate public and non-profit services
- Protect natural features and open space
- Protect wetlands and plant habitat/wildlife areas
- Encourage recreational and commercial marine activities
- Protect coastal areas from degradation
- Support sustainable economic development, year-round job creation
- Encourage conservation and reduce electric energy consumption
- Encourage the development and coordination of regional public transportation
- Promote and extend, if necessary, postsecondary education opportunities to enhance the Town's human resources

Achieving the Vision

Increases to the populations of Wellfleet, Truro and Provincetown will have impacts on Eastham. These impacts will include increased traffic congestion and safety concerns. The communities of the outer Cape need to review their development potential to determine what projected improvements maybe required to accommodate such growth, and methods of growth management which will help to achieve the vision and goals of each community.

The Eastham Long Range Planning Advisory Board seeks a balanced approach to resolve potential conflicts inherent in achieving the above vision related goals/needs expressed in workshops, such as balancing the need for improved traffic flow and safety along Route 6 with the desire of the Town to protect its historic and rural character. This Plan attempts to build on the historic and current data available, and to prepare a comprehensive framework for future policies which address the issues identified and which will guide the Town for the next twenty years.

POPULATION TRENDS

The population of the Town of Eastham has grown steadily and substantially for many years. More lately, from 1970 to 2000, it has increased from 2043 to 5453. Even during the most recent decade it has grown another twenty-two percent. The special characteristics of Eastham's population have a special impact on the community. The resident population has gotten older. The median age remained fairly steady from 1970 to 1990, increased substantially during the nineties from 41.7 years to 47.6 years. Furthermore, there is a larger and growing seasonal component in the summer population. In 1990 the summer population was estimated to be 21,800 and by 2000 it was conservatively estimated to be 27,500*. This is a twenty-six percent increase as compared with the twenty-two percent increase in the resident population.

These dramatic changes in Eastham's population are supported by increasing income, increased mobility of people, the draw of the National Seashore and other natural attractions as well as by the general appeal of the character of the community.

Such growth and changes in population impacts the use of the land and existing infrastructures. The management of the responses to these developments will determine the extent to which the mission and goals of this plan are achieved.

Table 1: Changes in Eastham's Population

Year	Population	Increase Over Previous Decade	Median Age
1940	582	-	-
1950	860	47.6%	-
1960	1,200	39.5%	37.5+/-
1970	2,043	70.3%	41.1
1980	3,472	69.9%	39.1
1990	4,462	28.5%	41.7
2000	5,453	22.2%	47.6

Source: U.S. Census via Cape Cod Commission

Projections for various neighboring communities are shown in Table 2. The likely impacts felt in the town by this projected growth in population will include increased local and through traffic, demand for additional services, and pressure for additional residential development of conversion from seasonal to year-round homes.

**The summer population is not regularly estimated by a standard method. It consists of several groups of people including year-round residents, summer residents, shorter term guests and more transient weekenders. Of these only the first group is regularly counted. Nonetheless the capacity to house people is limited. Assuming five people per house during a peak summer period plus 1000-1500 in motels the total population is about 25,000. The Eastham Police Department has another estimate of 30,000 from the Town Clerk's office. Thus the adjusted entry of 27,500. The actual summer population on any particular day would likely fluctuate around this number.*

Table 2: Projected Population for the Year 2010 - Selected Barnstable County Towns

			Population Change		Projected Population		
Town	1990 Population	2000 Population	Percent Change	Population Added	2010 Population	Percent Change	Population Added
Brewster	8,455	10,094	19%	1,639	15,623	55%	5,529
Chatham	6,579	6,625	1%	46	8,048	21%	1,423
Eastham	4,462	5,453	22%	991	7,280	34%	1,827
Harwich	10,275	12,386	21%	2,111	17,340	40%	4,954
Orleans	5,838	6,341	9%	503	7,672	21%	1,331
Provincetown	3,561	3,431	-4%	-130	3,549	3%	118
Truro	1,573	2,087	33%	514	2,295	10%	208
Wellfleet	2,493	2,749	10%	256	3,338	21%	589
Lower Cape Sub-Region	43,236	49,166	14%	5,930	65,145	33%	15,979
Barnstable County	186,605	222,230	19%	35,625	275,504	24%	53,274

Source: U.S. Census via Cape Cod Commission

Eastham's population has increased by an additional twenty-two percent or 991 people, between the years 1990 and 2000. The town's population is projected to continue to increase to 7,280 by 2010. Although margins of error attach to all projections, it must be recognized that they are of special importance for forward planning. It should also be noted that the population projection does not account for potential conversion of over 3,000 existing seasonal homes to year-round dwelling units. Although the rates of conversion have not been predicted there is evidence to show that such conversions have been occurring. The United States Bureau of the Census reports that in 2000 more that 43% of all housing units were occupied year-round while in 1990 the comparable ratio was only 49%. There is a movement toward year-round use of housing. This could occur quite easily in view of the fact that there are 246 seasonally used units which are built for year-round use. "Conversion" is a matter of use or occupancy. Other factors which could influence conversions include improved transportation and communications and the continued growth of the surrounding areas. The full conversion of seasonal to year-round housing units would have twice the potential impact on Eastham's municipal infrastructure, services and finances than would result with the complete development of the remaining vacant residential land in town.

this page intentionally left blank